CYPRESS SEMICONDUCTOR

CYPRESS SEMICONDUCTOR INVENTION DISCLOSURE FORM

DISCLOSURE NO. CD99060

1. INVENTOR(S)

A. Name LANE T. HAUCK Initials [redacted] Empl. No. [redacted] Ext. No. [redacted]

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Home Mailing Address 5346 BRAGG ST SAN DIEGO CA 92122

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Citizenship _____ Dept # _____ Home Phone No. _____

Home Mailing Address _____

D. Name _____ Initials _____ Empl. No. _____ Ext. No. _____

Citizenship _____ Dept # _____ Home Phone No. _____

Home Mailing Address _____

2. TITLE OF INVENTION CONTROL FOR ELECTRONIC PRESENTATIONS

3. CONCEPTION OF INVENTION

A. Date of first drawing or drawings [redacted]

Where can first drawing be found? email attachment to Drew F., Chris M.

B. Date of first written description [redacted]

Where can description be found? (same)

C. Date of first oral disclosure to others [redacted]

To whom? wife

Inventor(s) Lane Hauck Date 7-30-99

Inventor(s) _____ Date _____

Inventor(s) _____ Date _____

Witnessed, Read, and Understood by: [signature] Date 7-30-99

Witnessed, Read, and Understood by: _____ Date _____
(Each page upon which information is entered should be signed and witnessed.)

CYPRESS SEMICONDUCTOR INVENTION DISCLOSURE FORM

4. CONSTRUCTION OF DEVICE

A. Date completed Target date is [redacted]
B. Was prototype made? working on it now
C. By whom made? Lane Hauck.
D. Were can the prototype be found? home/work

5. TEST OF DEVICE

A. Date: _____ Witness(es): _____

B. Results: _____

6. SALE

A. Was invention sold or offered for sale? Yes _____ No X
B. Was invention used to make, assemble or test a commercial product? Yes _____ No X
C. Will invention be sold, offered for sale, sampled, or used to make, assemble or test a commercial product? Yes _____ No X
D. Actual or estimated date of first sale, offer or commercial use estimated - 4Q99
E. Is invention part of a product for which there is a data sheet? Yes _____ No X (if yes, attach a copy of the data sheet)
F. Actual or estimated date of publication, release or availability of data sheet _____

7. USE

A. Is invention presently being used? Yes _____ No X

B. Are there specific plans for its use in near future? In what products or processes?

Marketing tool for USB chips

8. RELATED PUBLICATIONS, PATENTS, AND PATENT APPLICATIONS

_____

_____

9. WAS INVENTION: Conceived (Yes ____ (No X Constructed (Yes ____ (No X Tested (Yes ____ (No X during performance of Government Contract?

Contract Number _____

Inventor(s) Lane Hauck Date 7-30-99

Inventor(s) _____ Date _____

Inventor(s) _____ Date _____

Witnessed, Read, and Understood by: [signature] Date 7-30-99

Witnessed, Read, and Understood by: _____ Date _____
(Each page upon which information is entered should be signed and witnessed.)

CYPRESS SEMICONDUCTOR INVENTION DISCLOSURE FORM

(Give Full Contract Number)

The description of invention should be written in the inventor's own words and generally should follow the outline given below. Sketches, prints, photos, and other illustrations, as well as memos or reports of any nature in which the invention is referred to, if available, should form a part of this disclosure and reference and be made thereto in the descriptions of the invention's construction and operation.

FOR ANSWERS TO THE FOLLOWING QUESTIONS, USE THE REMAINDER OF SHEET AND THE ATTACHED SHEET(S).

1. General purpose of invention. State in general terms the objects of the invention.
2. Describe old technology, if any, for performing the function of the invention. Provide references, if available.
3. Indicated the disadvantages of the old technology.
4. Describe your invention and its construction, showing the changes, additions and improvements over the old method.
5. Give details of its operation (i.e., how is your invention used?), if not already described under 4.
6. State the advantages of your invention over what has been done before.
7. Indicated any alternate component(s) and/or method(s) of construction.
8. If a joint invention, indicate what contribution was made by each inventor.
9. Describe the features that are believed to be new.
10. State opinion of relative value of invention.
11. After the disclosure is prepared, it should be signed by the inventor(s) and then read and signed by two witnesses in the space provided at the bottom of each sheet.

See "Control For Electronic Presentations" dated [redacted], which is attached. (3 pages)

Inventor(s) Jane Hamilton Date 7-30-99

Inventor(s) _____ Date _____

Inventor(s) _____ Date _____

Witnessed, Read, and Understood by: [signature] Date 7-30-99

Witnessed, Read, and Understood by: _____ Date _____
(Each page upon which information is entered should be signed and witnessed.)

Invention Title: Control for Electronic Presentations
Inventor: Lane Hauck
Date: [redacted]

Background

Giving presentations is an anxious experience. The anxiety level can increase when the presentation is given electronically, using a personal computer running a presentation software package such as PowerPoint from Microsoft Corp.

To a presenter not familiar with the operation of the presentation software, it may not be obvious how to perform the basic task of advancing to the next slide. For example, in PowerPoint this is accomplished by pressing the left mouse button, or one of several keyboard keys. Inadvertently pressing the right mouse button or other keyboard keys can ruin the presentation by backing up, or worse, exiting the PowerPoint program entirely. This can lead to a flurry of activity, whereby the presenter often must ask a member of the support staff (or audience) for assistance in resuming the presentation. This disrupts the presentation flow and embarrasses the presenter.

Accessory devices have been designed and built to attempt to make delivery of an electronic slide show smooth and foolproof. For example, wireless remote controls that use an Infrared beam similar to a TV remote control are available. These devices usually attach to the PC through a serial port, and require special "driver" software to translate commands from the port to keystroke or mouse emulation commands that are recognizable by the presentation software. This special software limits the use of such devices to pre-prepared computers, on which the driver software has been installed. In addition, these devices tend to be complex, to allow many options. Therefore they present a whole new set of "learning curve" challenges to the presenter, and thus may defeat the goal of being simple and foolproof.

Improvement

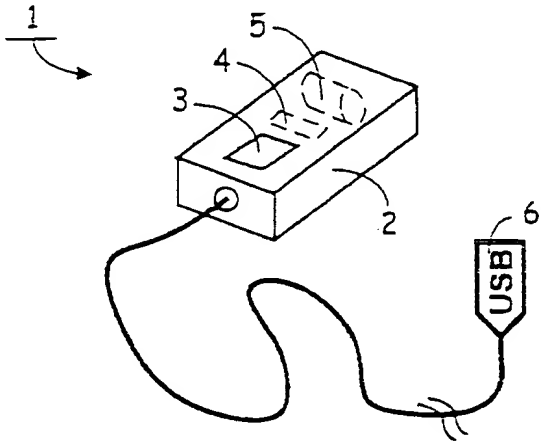
It would be advantageous to have a simple control that presents no complex options to the presenter, and has the primary purpose of advancing to the next slide of an electronic presentation. The control should be arranged in such a manner that the presenter is not given complex options which have the potential for misuse. Such an improved control should connect to any PC (or Macintosh) and operate without the necessity of pre-installing driver software. A further advantage would be the ability to "hot-plug" into the computer, so if a spur-of-the-moment decision is made to use the control, it can be plugged in and activated without re-booting the computer.

Finally, as a new feature, it would be desirable for such a control to provide feedback to the presenter in a non-obtrusive manner. For example, if the presenter wishes to know that the next slide is available (there can be a significant delay between slides if they are rich in graphics and require long disk accesses), it would be advantageous for the control to give the presenter unobtrusive feedback when the next slide is fully loaded and ready

Lane Hauck 7-30-99 Witness: [signature] 7-30-99

for presentation. As another example, if an assistant wishes to help pace a presentation by alerting the presenter that time is running low, it would be desirable for such indication to be given simply by having the assistant press a key on the keyboard of the presentation computer.

The Invention



Can also work USB for laser pointer

FIGURE 1

The control 1 consists of a compact housing 2 which contains a pushbutton 3, and internally contains a single-chip microprocessor 4 that is capable of implementing a USB (Universal Serial Bus) peripheral device, and a small motor with eccentric weight attached 5 which vibrates when power is applied to it. The control 1 attaches to a PC or Macintosh via USB connector 6, and draws power from the USB.

Typical microprocessor 4 is the Cypress CY63000. The vibrator assembly is of the type commonly used in pagers and cell phones.

The microprocessor 4 is programmed to implement the USB "HID" (Human Interface Device) standard. This allows the control to function as a standard keyboard known to the operating system, and therefore the control requires no special driver code to be loaded into the PC. Further, microprocessor 4 is programmed to implement a standard keyboard HID function, with the pushbutton 3 acting as the keyboard key normally used to advance an electronic presentation to the next slide. Finally, microprocessor 4 is programmed to recognize the command sent to all keyboards which turns on and off the "Caps Lock" or similar keyboard LED (Light Emitting Diode). When such an indication is received, the microprocessor 4 applies power to the vibrator 5 and thus unobtrusively alerts the presenter whenever an assistant at the presenting PC keyboard presses the Caps Lock (or similar) key. Microprocessor 4 can also be programmed to activate vibrator 5 on an automated basis, for example when the next slide is available for display.

(I will supply schematic and assembly language firmware listing for the patent application).

7-30-99 WITNESS: 7-30-99

Claims

1. A device that attaches to a computer running an electronic presentation program that allows a presenter to advance slides in a simple and foolproof manner, said device simultaneously allowing full functionality of the presentation computer.

2. Claim 1 where said simple and foolproof operation is achieved by having one button, which the presenter presses to advance the presentation to the next slide.

3. Claim 1 whereby said device can be "hot-plugged" into the computer at any time, even while running, and be immediately available for use without re-booting or re-powering.

4. Claim 1 whereby said device requires no user-installed driver software for operation.

5. Claim 1 whereby said device requires no external power source.

6. Claim 3 whereby said functionality is provided by using the Universal Serial Bus (USB).

7. Claim 4 whereby said functionality is provided by using the Universal Serial Bus (USB).

8. Claim 5 whereby said functionality is provided by using the Universal Serial Bus (USB).

9. Claim 6, whereby said USB interface includes a wireless link between the presenter control and the USB interface.

10. A device that attaches to a computer running an electronic presentation program that allows a presenter to advance slides in a simple and foolproof manner, and which includes means unobtrusively to alert the presenter to certain events.

11. (claims 2-9 repeated, referencing claim 10)

12. Claim 10 whereby said alerting means includes a visible indicator such as an LED (Light Emitting Diode).

13. Claim 10 whereby said alerting means includes a vibrator.

7-30-99

Witness: 7-30-99